



**CONESTOGA-ROVERS
& ASSOCIATES**

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September 17, 2010

Reference No. 17338

Mr. Aaron Siegel
Tank Management Branch
Waste Management Section
Delaware Department of Natural Resources and Environmental Control
391 Lukens Drive
New Castle, Delaware 19720-2774

Dear Mr. Siegel:

Re: Tank F Investigation Report Addendum
Former GM Wilmington Assembly Plant
Wilmington, Delaware

On March 2, 2010, Conestoga-Rovers & Associates (CRA) submitted the Tank F Investigation Report (Report), prepared in accordance with the Tank F Investigation Work Plan, to the Delaware Department of Natural Resources and Environmental Control (DNREC) Tank Management Branch (TMB) on behalf of Motors Liquidation Company (MLC). The Report presented the results of sampling related to aboveground storage tank (AST) closure activities conducted to adequately delineate semi-volatile organic compound (SVOC) impacts in the vicinity of Tank F at the former General Motors Corporation (GM) Wilmington Assembly Plant in Wilmington, Delaware (Site). Tank F is a 250,000-gallon, vertical AST located within an earthen berm in the tank farm located on the west side of the plant. It was installed in 1955 for the storage of No. 6 fuel oil and was permanently taken out of service on April 18, 2007. Tank F was cleaned once it was permanently removed from service and is now empty.

The groundwater quality in the vicinity of Tank F was characterized in April 2009 as part of a Site assessment for the closure of four ASTs (i.e., Tanks A, B, C, and F). Two groundwater grab samples were collected in the vicinity of Tank F for laboratory analysis of SVOCs and metals. A review of the laboratory analytical results found groundwater in the vicinity of Tank F exhibited levels of SVOCs above Delaware Uniform Risk-Based Remediation Standards (URs) for groundwater. These findings were documented in the AST Closure Document, prepared by CRA and submitted to DNREC on August 18, 2009. The August 2009 report recommended further delineation of SVOC impacts in the vicinity of Tank F.

Groundwater samples were collected on January 21, 2010, from existing monitoring well MW-8 and two new monitoring wells (i.e., MW-20 and MW-21) using low flow groundwater sampling



techniques. A total of four groundwater samples, including one duplicate sample for quality assurance purposes, were collected from monitoring wells MW-8, MW-20, and MW-21.

It was noted in the Report that the method detection limit for some analyzed parameters was above the URSs. As proposed in the report, monitoring wells MW-8, MW-21, and MW-22 were re-sampled and analyzed to achieve lower detection limits. Three groundwater samples were collected from monitoring wells MW-8, MW-20, and MW-21 on March 1 and March 2, 2010 and analyzed for base /neutral SVOCs. Groundwater sample results for the groundwater samples collected during the January 2010 and March 2010 sample events are summarized in Table 1 along with the applicable criteria for comparative reference. The potentiometric surface, based on depth to groundwater measurements recorded in May 2010, are presented on Figure 1 and indicate that groundwater flows west south west across the Tank F investigation area.

With the exception of naphthalene detected in the upgradient well (i.e., MW-8), no analyzed parameters were detected above the referenced criteria. Naphthalene was detected at an estimated concentration of 140 micrograms per liter ($\mu\text{g/L}$) in January 2010 and at an estimated concentration of 100 $\mu\text{g/L}$ in March 2010 which exceeds the URS of 20 $\mu\text{g/L}$ but is below the United States Environmental Protection Agency (U.S. EPA) Region 9 Preliminary Remediation Goal of 730 $\mu\text{g/L}$ (U.S. EPA, 2004). Further, the Risk Based Screening Levels (RBSLs) presented in the Delaware Risk Based Corrective Action Program (DERCAP) Guide for Underground Storage Tank (UST) Sites (DNREC, 2000) indicate that the aqueous solubility of naphthalene is below the cleanup standard for groundwater at a distance of greater than 50 feet from the point of compliance. As such, in accordance with DERBCAP, the presence of naphthalene in groundwater more than 50 feet from the property boundary does not pose an unacceptable risk. It is noted that the method detection limits for some key parameters (i.e., benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, 2,4-dinitrophenol, hexachlorobenzene, hexachloroethane, pentachlorophenol, and 2,4,6-trichlorophenol) were lowered so that analyte concentrations could be detected below the URSs. These analytes were not detected at the lowered method detection limits. The laboratory analytical report data for the March 2010 sampling are provided in Attachment A.

With the collection of additional soil data in accordance with the Tank F Investigation Work Plan, SVOC impacts to soil in the vicinity of Tank F have been delineated and demonstrate that the contamination remaining in the subsurface is limited in extent. It is recommended that the impacts to soil will be addressed as part of the Site Wide Remedial Action Plan.

With the collection of additional groundwater data in accordance with the Tank F Investigation Work Plan, SVOC impacts to groundwater in the vicinity of Tank F were found to be limited to the upgradient monitoring well (i.e., MW-8) and immediately downgradient groundwater grab sample (i.e., GP-12). No analyzed parameters were detected above the URS in monitoring wells



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further downgradient of Tank F. The groundwater quality at MW-8 is being evaluated as part of the ongoing OU-2 groundwater monitoring. The presence of SVOCs above the URS at GP-12 will be confirmed through installation of a monitoring well immediately downgradient of Tank F. It is recommended that the details of the well placement, installation, and sampling be provided in the Site Wide Investigation Work Plan. Should groundwater impacts downgradient of Tank F be confirmed, it is recommended that the impacts be addressed as part of the Site Wide Remedial Action Plan.

Should you have any questions, please do not hesitate to contact our office.

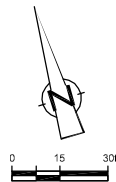
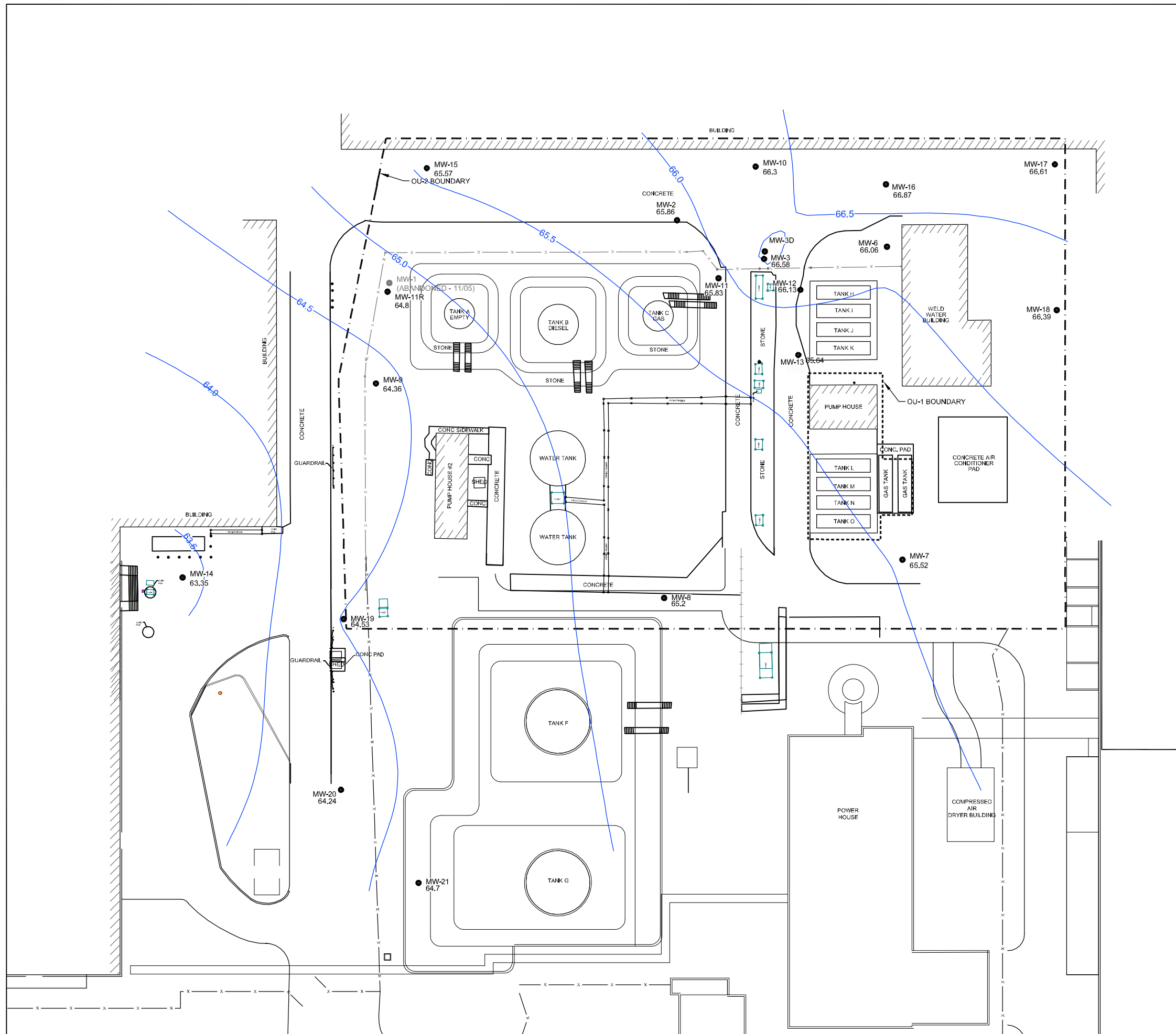
Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Shannon Richardson, B.A. Sc.

JB/jb/4
Encl.

c.c.: Rick Galloway (DNREC)
David Favero (MLC)
Gregory Carli (CRA)
Chris Barton (CRA)



LEGEND

- OU-1 BOUNDARY
- - - - - OU-2 BOUNDARY
- x - - - FENCE LINE
- + - - - FORMER RAIL SIDING
- ▬ BUILDING
- MW-9 MONITORING WELL LOCATION
- MW-1 ABANDONED MONITORING WELL LOCATION
- 66.5— GROUNDWATER CONTOUR (FT AMSL)

DRAFT FOR REVIEW
(SEPTEMBER 9, 2010)

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.



Approved

DRAWING STATUS

Status	Date	Initial

GM WILMINGTON ASSEMBLY PLANT
WILMINGTON, DELAWARE

TANK F INVESTIGATION REPORT ADDENDUM

POTENTIOMETRIC SURFACE MAP
SEPTEMBER 2010



CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager: S. RICHARDSON	Reviewed By: J. BERGSMAN	Date: JUNE 2010
Scale: 1:30	Project N°: 17338-00	Report N°: SIEG004
		Drawing N°: 1

TABLE 1

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TANK F INVESTIGATION REPORT ADDENDUM
FORMER GM WILMINGTON ASSEMBLY PLANT
WILMINGTON, DELAWARE**

<i>Sample Location:</i>		MW-8	MW-8
<i>Sample ID:</i>		GW-017338-012110-ACH-001	GW-017338-030110-ACH-003
<i>Sample Date:</i>		1/21/2010	3/1/2010
	URS ⁽¹⁾		
<i>Semi-Volatile Organic Compounds (µg/L)</i>			
Acenaphthene	37	10 U	3.8 U
Acenaphthylene	-	10 U	4.1 U
Acetophenone	0.004	10 U	4.4 U
Anthracene	180	10 U	3.6 U
Atrazine	0.3	10 U	4.9 U
Benzaldehyde	370	10 UJ	1.4 UJ
Benzo(a)anthracene	0.09	1.0 U	0.020 U
Benzo(a)pyrene	.2	1.0 U	0.031 U
Benzo(b)fluoranthene	0.09	1.0 U	0.041 U
Benzo(g,h,i)perylene	-	10 U	2.8 U
Benzo(k)fluoranthene	0.9	1.0 U	0.31 U
Biphenyl (1,1-Biphenyl)	30	10 U	5.5 U
bis(2-Chloroethoxy)methane	-	10 U	3.5 U
bis(2-Chloroethyl)ether	0.01	1.0 U	0.42 U
bis(2-Ethylhexyl)phthalate (DEHP)	6	10 U	2.4 U
4-Bromophenyl phenyl ether	-	10 U	4.0 U
Butyl benzylphthalate (BBP)	730	10 U	2.8 U
4-Chloro-3-methylphenol	-	10 U	2.0 U
4-Chloroaniline	15	10 U	2.1 U
2-Chloronaphthalene	49	10 U	3.8 U
2-Chlorophenol	30	10 U	2.7 U
4-Chlorophenyl phenyl ether	-	10 U	4.0 U
Caprolactam	1800	10 U	0.51 U
Carbazole	3	10 U	3.1 U
Chrysene	9	10 U	3.8 U
Dibenz(a,h)anthracene	0.01	1.0 U	0.16 U
Dibenzofuran	2	10 U	3.7 U
3,3'-Dichlorobenzidine	0.2	20 U	7.1 U
2,4-Dichlorophenol	20	10 U	2.8 U
Diethyl phthalate	5000	10 U	3.9 U
Dimethyl phthalate	37000	10 U	3.3 U
2,4-Dimethylphenol	73	10 U	2.6 U
Di-n-butylphthalate (DBP)	370	10 U	2.8 U
Di-n-octyl phthalate (DnOP)	73	10 U	1.9 U
4,6-Dinitro-2-methylphenol	0.4	30 U	5.3 U
2,4-Dinitrophenol	7	30 U	4.9 U
2,4-Dinitrotoluene	7	2.0 U	0.44 U
2,6-Dinitrotoluene	4	2.0 U	0.60 U
Fluoranthene	150	10 U	2.7 U
Fluorene	24	10 U	3.3 U
Hexachlorobenzene	1	1.0 U	0.010 U
Hexachlorobutadiene	1	2.0 U	0.96 U
Hexachlorocyclopentadiene	50	10 U	4.7 U
Hexachloroethane	1	1.0 U	0.51 U
Indeno(1,2,3-cd)pyrene	0.09	1.0 U	0.12 U
Isophorone	100	10 U	3.7 U
2-Methylnaphthalene	12	10 U	3.2 U
2-Methylphenol	180	10 U	1.7 U
4-Methylphenol	18	10 U	1.6 U
Naphthalene	20	140 J	100 J
2-Nitroaniline	0.2	20 U	5.8 U
3-Nitroaniline	-	20 U	4.4 U
4-Nitroaniline	-	20 U	4.1 U
Nitrobenzene	0.4	1.0 U	0.42 U
2-Nitrophenol	-	10 U	3.5 U
4-Nitrophenol	60	30 U	2.4 U
N-Nitrosodi-n-propylamine	0.01	1.0 U	0.33 U
N-Nitrosodiphenylamine	14	10 U	3.9 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	0.3	10 U	3.3 U
Pentachlorophenol	1	30 U	0.14 U
Phenanthrene	120	10 U	3.6 U
Phenol	22	10 U	0.91 U
Pyrene	18	10 U	4.4 U
2,4,5-Trichlorophenol	370	10 U	2.6 U
2,4,6-Trichlorophenol	6	10 U	3.2 U

Notes:

J - Estimated concentration.

U - Not present at or above the associated value.

UJ - Estimated reporting limit.

(1) - Delaware Uniform Risk-Based Remediation Standards - December 1999 - Groundwater

TABLE 1

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TANK F INVESTIGATION REPORT ADDENDUM
FORMER GM WILMINGTON ASSEMBLY PLANT
WILMINGTON, DELAWARE**

<i>Sample Location:</i>		<i>MW-20</i>	<i>MW-20</i>
<i>Sample ID:</i>		<i>GW-017338-012110-ACH-004</i>	<i>GW-017338-030210-RAM-005</i>
<i>Sample Date:</i>		<i>1/21/2010</i>	<i>3/2/2010</i>
	URS ⁽¹⁾		
<i>Semi-Volatile Organic Compounds (µg/L)</i>			
Acenaphthene	37	10 U	3.8 U
Acenaphthylene	-	10 U	4.1 U
Acetophenone	0.004	10 U	4.4 U
Anthracene	180	10 U	3.6 U
Atrazine	0.3	10 U	4.9 U
Benzaldehyde	370	10 UJ	1.4 UJ
Benzo(a)anthracene	0.09	1.0 U	0.020 U
Benzo(a)pyrene	.2	1.0 U	0.031 U
Benzo(b)fluoranthene	0.09	1.0 U	0.041 U
Benzo(g,h,i)perylene	-	10 U	2.8 U
Benzo(k)fluoranthene	0.9	1.0 U	0.31 U
Biphenyl (1,1-Biphenyl)	30	10 U	5.5 U
bis(2-Chloroethoxy)methane	-	10 U	3.5 U
bis(2-Chloroethyl)ether	0.01	1.0 U	0.42 U
bis(2-Ethylhexyl)phthalate (DEHP)	6	10 U	2.4 U
4-Bromophenyl phenyl ether	-	10 U	4.0 U
Butyl benzylphthalate (BBP)	730	10 U	2.8 U
4-Chloro-3-methylphenol	-	10 U	2.0 U
4-Chloroaniline	15	10 U	2.1 U
2-Chloronaphthalene	49	10 U	3.8 U
2-Chlorophenol	30	10 U	2.7 U
4-Chlorophenyl phenyl ether	-	10 U	4.0 U
Caprolactam	1800	10 U	0.51 U
Carbazole	3	10 U	3.1 U
Chrysene	9	10 U	3.8 U
Dibenz(a,h)anthracene	0.01	1.0 U	0.16 U
Dibenzofuran	2	10 U	3.7 U
3,3'-Dichlorobenzidine	0.2	20 U	7.1 U
2,4-Dichlorophenol	20	10 U	2.8 U
Diethyl phthalate	5000	10 U	3.9 U
Dimethyl phthalate	37000	10 U	3.3 U
2,4-Dimethylphenol	73	10 U	2.6 U
Di-n-butylphthalate (DBP)	370	10 U	2.8 U
Di-n-octyl phthalate (DnOP)	73	10 U	1.9 U
4,6-Dinitro-2-methylphenol	0.4	30 U	5.3 U
2,4-Dinitrophenol	7	30 U	4.9 U
2,4-Dinitrotoluene	7	2.0 U	0.44 U
2,6-Dinitrotoluene	4	2.0 U	0.60 U
Fluoranthene	150	10 U	2.7 U
Fluorene	24	10 U	3.3 U
Hexachlorobenzene	1	1.0 U	0.010 U
Hexachlorobutadiene	1	2.0 U	0.96 U
Hexachlorocyclopentadiene	50	10 U	4.7 U
Hexachloroethane	1	1.0 U	0.51 U
Indeno(1,2,3-cd)pyrene	0.09	1.0 U	0.12 U
Isophorone	100	10 U	3.7 U
2-Methylnaphthalene	12	10 U	3.2 U
2-Methylphenol	180	10 U	1.7 U
4-Methylphenol	18	10 U	1.6 U
Naphthalene	20	10 U	3.7 U
2-Nitroaniline	0.2	20 U	5.8 U
3-Nitroaniline	-	20 U	4.4 U
4-Nitroaniline	-	20 U	4.1 U
Nitrobenzene	0.4	1.0 U	0.42 U
2-Nitrophenol	-	10 U	3.5 U
4-Nitrophenol	60	30 U	2.4 U
N-Nitrosodi-n-propylamine	0.01	1.0 U	0.33 U
N-Nitrosodiphenylamine	14	10 U	3.9 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	0.3	10 U	3.3 U
Pentachlorophenol	1	30 U	0.14 U
Phenanthrene	120	10 U	3.6 U
Phenol	22	10 U	0.91 U
Pyrene	18	10 U	4.4 U
2,4,5-Trichlorophenol	370	10 U	2.6 U
2,4,6-Trichlorophenol	6	10 U	3.2 U

Notes:

J - Estimated concentration.

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(1) - Delaware Uniform Risk-Based Remediation Standards - December 1999 - Groundwat

TABLE 1

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TANK F INVESTIGATION REPORT ADDENDUM
FORMER GM WILMINGTON ASSEMBLY PLANT
WILMINGTON, DELAWARE**

<i>Sample Location:</i>		MW-21	MW-21	MW-21
<i>Sample ID:</i>		GW-017338-012110-ACH-002	GW-017338-012110-ACH-003	GW-017338-030210-RAM-007
<i>Sample Date:</i>		1/21/2010	1/21/2010	3/2/2010
	URS ⁽¹⁾		(Duplicate)	
<i>Semi-Volatile Organic Compounds (µg/L)</i>				
Acenaphthene	37	10 U	10 U	3.9 U
Acenaphthylene	-	10 U	10 U	4.2 U
Acetophenone	0.004	10 U	10 U	4.5 U
Anthracene	180	10 U	10 U	3.7 U
Atrazine	0.3	10 U	10 U	5.0 U
Benzaldehyde	370	10 UJ	10 UJ	1.4 UJ
Benzo(a)anthracene	0.09	1.0 U	1.0 U	0.021 U
Benzo(a)pyrene	.2	1.0 U	1.0 U	0.031 U
Benzo(b)fluoranthene	0.09	1.0 U	1.0 U	0.042 U
Benzo(g,h,i)perylene	-	10 U	10 U	2.8 U
Benzo(k)fluoranthene	0.9	1.0 U	1.0 U	0.31 U
Biphenyl (1,1-Biphenyl)	30	10 U	10 U	5.6 U
bis(2-Chloroethoxy)methane	-	10 U	10 U	3.6 U
bis(2-Chloroethyl)ether	0.01	1.0 U	1.0 U	0.43 U
bis(2-Ethylhexyl)phthalate (DEHP)	6	10 U	10 U	2.5 U
4-Bromophenyl phenyl ether	-	10 U	10 U	4.1 U
Butyl benzylphthalate (BBP)	730	10 U	10 U	2.9 U
4-Chloro-3-methylphenol	-	10 U	10 U	2.1 U
4-Chloroaniline	15	10 U	10 U	2.2 U
2-Chloronaphthalene	49	10 U	10 U	3.9 U
2-Chlorophenol	30	10 U	10 U	2.7 U
4-Chlorophenyl phenyl ether	-	10 U	10 U	4.1 U
Caprolactam	1800	10 U	10 U	0.52 U
Carbazole	3	10 U	10 U	3.2 U
Chrysene	9	10 U	10 U	3.9 U
Dibenz(a,h)anthracene	0.01	1.0 U	1.0 U	0.17 U
Dibenzofuran	2	10 U	10 U	3.7 U
3,3'-Dichlorobenzidine	0.2	20 U	20 U	7.3 U
2,4-Dichlorophenol	20	10 U	10 U	2.9 U
Diethyl phthalate	5000	10 U	10 U	4.0 U
Dimethyl phthalate	37000	10 U	10 U	3.4 U
2,4-Dimethylphenol	73	10 U	10 U	2.6 U
Di-n-butylphthalate (DBP)	370	10 U	10 U	2.9 U
Di-n-octyl phthalate (DnOP)	73	10 U	10 U	2.0 U
4,6-Dinitro-2-methylphenol	0.4	30 U	30 U	5.4 U
2,4-Dinitrophenol	7	30 U	30 U	5.0 U
2,4-Dinitrotoluene	7	2.0 U	2.0 U	0.45 U
2,6-Dinitrotoluene	4	2.0 U	2.0 U	0.61 U
Fluoranthene	150	10 U	10 U	2.8 U
Fluorene	24	10 U	10 U	3.4 U
Hexachlorobenzene	1	1.0 U	1.0 U	0.010 U
Hexachlorobutadiene	1	2.0 U	2.0 U	0.98 U
Hexachlorocyclopentadiene	50	10 U	10 U	4.8 U
Hexachloroethane	1	1.0 U	1.0 U	0.52 U
Indeno(1,2,3-cd)pyrene	0.09	1.0 U	1.0 U	0.12 U
Isophorone	100	10 U	10 U	3.7 U
2-Methylnaphthalene	12	10 U	10 U	3.2 U
2-Methylphenol	180	10 U	10 U	1.7 U
4-Methylphenol	18	10 U	10 U	1.6 U
Naphthalene	20	10 U	10 U	3.8 U
2-Nitroaniline	0.2	20 U	20 U	5.9 U
3-Nitroaniline	-	20 U	20 U	4.5 U
4-Nitroaniline	-	20 U	20 U	4.1 U
Nitrobenzene	0.4	1.0 U	1.0 U	0.43 U
2-Nitrophenol	-	10 U	10 U	3.5 U
4-Nitrophenol	60	30 U	30 U	2.4 U
N-Nitrosodi-n-propylamine	0.01	1.0 U	1.0 U	0.33 U
N-Nitrosodiphenylamine	14	10 U	10 U	4.0 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	0.3	10 U	10 U	3.3 U
Pentachlorophenol	1	30 U	30 U	0.15 U
Phenanthrene	120	10 U	10 U	3.7 U
Phenol	22	10 U	10 U	0.93 U
Pyrene	18	10 U	10 U	4.4 U
2,4,5-Trichlorophenol	370	10 U	10 U	2.6 U
2,4,6-Trichlorophenol	6	10 U	10 U	3.3 U

Notes:

J - Estimated concentration.

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ATTACHMENT A

LABORATORY ANALYTICAL DATA

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030110-ACH-003

Lab Sample ID: 460-10889-3

Date Sampled: 03/01/2010 1400

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method:	8260B	Analysis Batch: 460-31311	Instrument ID:	VOAMS4
Preparation:	5030B		Lab File ID:	d16911.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	03/05/2010 1020		Final Weight/Volume:	5 mL
Date Prepared:	03/05/2010 1020			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.25	1.0
Dichlorodifluoromethane	1.0	U	0.29	1.0
Chloromethane	1.0	U	0.21	1.0
Vinyl chloride	1.0	U	0.13	1.0
Bromomethane	1.0	U	0.31	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.16	1.0
Trichlorofluoromethane	1.0	U	0.16	1.0
1,1-Dichloroethene	1.0	U	0.14	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
Acetone	10	U	2.5	10
Carbon disulfide	1.0	U	0.15	1.0
Methyl acetate	2.0	U	0.33	2.0
Methylene Chloride	1.0	U	0.19	1.0
trans-1,2-Dichloroethene	1.0	U	0.14	1.0
Chlorodibromomethane	1.0	U	0.11	1.0
Methyl tert-butyl ether	3.1		0.18	1.0
Chloroethane	1.0	U	0.45	1.0
1,1-Dichloroethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.20	1.0
2-Butanone (MEK)	10	U	0.82	10
Chloroform	1.0	U	0.15	1.0
Ethylbenzene	0.31	J	0.25	1.0
Cyclohexane	2.3		0.13	1.0
Carbon tetrachloride	1.0	U	0.19	1.0
Benzene	2.2		0.13	1.0
1,2-Dichloroethane	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.18	1.0
Methylcyclohexane	10		0.090	1.0
Dichlorobromomethane	1.0	U	0.093	1.0
cis-1,3-Dichloropropene	1.0	U	0.11	1.0
4-Methyl-2-pentanone (MIBK)	10	U	0.68	10
Toluene	0.58	J	0.090	1.0
trans-1,3-Dichloropropene	1.0	U	0.12	1.0
1,1,2-Trichloroethane	1.0	U	0.10	1.0
Tetrachloroethene	1.0	U	0.20	1.0
2-Hexanone	10	U	0.55	10
1,2-Dibromoethane	1.0	U	0.090	1.0
Chlorobenzene	1.7		0.16	1.0
Xylenes, Total	0.82	J	0.43	3.0
Styrene	1.0	U	0.13	1.0
Bromoform	1.0	U	0.10	1.0
Isopropylbenzene	3.3		0.21	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.22	1.0

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030110-ACH-003

Lab Sample ID: 460-10889-3

Date Sampled: 03/01/2010 1400

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method:	8260B	Analysis Batch: 460-31311	Instrument ID:	VOAMS4
Preparation:	5030B		Lab File ID:	d16911.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	03/05/2010 1020		Final Weight/Volume:	5 mL
Date Prepared:	03/05/2010 1020			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trichlorobenzene	1.0	U	0.44	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 122
4-Bromofluorobenzene	94		69 - 135
Toluene-d8 (Surr)	96		69 - 125

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030110-ACH-003

Lab Sample ID: 460-10889-3

Date Sampled: 03/01/2010 1400

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method:	8260B	Analysis Batch: 460-31311	Instrument ID:	VOAMS4
Preparation:	5030B		Lab File ID:	d16911.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	03/05/2010 1020		Final Weight/Volume:	5 mL
Date Prepared:	03/05/2010 1020			

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
496-11-7	Indane	10.22	140	T J N
	Diethylbenzene isomer	10.26	22	T J
	Ethyl dimethylbenzene isomer	10.56	120	T J
	Unknown Aromatic	10.63	18	T J
	Tetramethylbenzene isomer	10.85	100	T J
	Unknown	10.89	23	T J
	Unknown Aromatic-1	11.04	16	T J
	2,3-dihydro-methyl-1H-Indene isomer	11.17	160	T J
	C11H16 Aromatic-1	11.49	10	T J
91-20-3	Naphthalene	11.70	180	

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030210-RAM-005

Lab Sample ID: 460-10889-5

Date Sampled: 03/02/2010 1210

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method:	8260B	Analysis Batch: 460-31311	Instrument ID:	VOAMS4
Preparation:	5030B		Lab File ID:	d16918.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	03/05/2010 1311		Final Weight/Volume:	5 mL
Date Prepared:	03/05/2010 1311			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.25	1.0
Dichlorodifluoromethane	1.0	U	0.29	1.0
Chloromethane	1.0	U	0.21	1.0
Vinyl chloride	1.0	U	0.13	1.0
Bromomethane	1.0	U	0.31	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.16	1.0
Trichlorofluoromethane	1.0	U	0.16	1.0
1,1-Dichloroethene	1.0	U	0.14	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
Acetone	10	U	2.5	10
Carbon disulfide	1.0	U	0.15	1.0
Methyl acetate	2.0	U	0.33	2.0
Methylene Chloride	1.0	U	0.19	1.0
trans-1,2-Dichloroethene	1.0	U	0.14	1.0
Chlorodibromomethane	1.0	U	0.11	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
Chloroethane	1.0	U	0.45	1.0
1,1-Dichloroethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.20	1.0
2-Butanone (MEK)	10	U	0.82	10
Chloroform	1.0	U	0.15	1.0
Ethylbenzene	1.0	U	0.25	1.0
Cyclohexane	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.19	1.0
Benzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.090	1.0
Dichlorobromomethane	1.0	U	0.093	1.0
cis-1,3-Dichloropropene	1.0	U	0.11	1.0
4-Methyl-2-pentanone (MIBK)	10	U	0.68	10
Toluene	1.0	U	0.090	1.0
trans-1,3-Dichloropropene	1.0	U	0.12	1.0
1,1,2-Trichloroethane	1.0	U	0.10	1.0
Tetrachloroethene	1.0	U	0.20	1.0
2-Hexanone	10	U	0.55	10
1,2-Dibromoethane	1.0	U	0.090	1.0
Chlorobenzene	0.16	J	0.16	1.0
Xylenes, Total	3.0	U	0.43	3.0
Styrene	1.0	U	0.13	1.0
Bromoform	1.0	U	0.10	1.0
Isopropylbenzene	1.0	U	0.21	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.22	1.0

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030210-RAM-005

Lab Sample ID: 460-10889-5

Date Sampled: 03/02/2010 1210

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method:	8260B	Analysis Batch: 460-31311	Instrument ID:	VOAMS4
Preparation:	5030B		Lab File ID:	d16918.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	03/05/2010 1311		Final Weight/Volume:	5 mL
Date Prepared:	03/05/2010 1311			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trichlorobenzene	1.0	U	0.44	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 122
4-Bromofluorobenzene	95		69 - 135
Toluene-d8 (Surr)	100		69 - 125

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030210-RAM-005

Lab Sample ID: 460-10889-5

Date Sampled: 03/02/2010 1210

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method: 8260B

Analysis Batch: 460-31311

Instrument ID: VOAMS4

Preparation: 5030B

Lab File ID: d16918.d

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 03/05/2010 1311

Final Weight/Volume: 5 mL

Date Prepared: 03/05/2010 1311

Tentatively Identified Compounds

Number TIC's Found: 0

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030210-RAM-007

Lab Sample ID: 460-10889-7

Date Sampled: 03/02/2010 1310

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method:	8260B	Analysis Batch: 460-31311	Instrument ID:	VOAMS4
Preparation:	5030B		Lab File ID:	d16919.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	03/05/2010 1335		Final Weight/Volume:	5 mL
Date Prepared:	03/05/2010 1335			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.25	1.0
Dichlorodifluoromethane	1.0	U	0.29	1.0
Chloromethane	1.0	U	0.21	1.0
Vinyl chloride	1.0	U	0.13	1.0
Bromomethane	1.0	U	0.31	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.15	1.0
1,2-Dichlorobenzene	1.0	U	0.16	1.0
Trichlorofluoromethane	1.0	U	0.16	1.0
1,1-Dichloroethene	1.0	U	0.14	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.28	1.0
Acetone	10	U	2.5	10
Carbon disulfide	1.0	U	0.15	1.0
Methyl acetate	2.0	U	0.33	2.0
Methylene Chloride	1.0	U	0.19	1.0
trans-1,2-Dichloroethene	1.0	U	0.14	1.0
Chlorodibromomethane	1.0	U	0.11	1.0
Methyl tert-butyl ether	1.0	U	0.18	1.0
Chloroethane	1.0	U	0.45	1.0
1,1-Dichloroethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.20	1.0
2-Butanone (MEK)	10	U	0.82	10
Chloroform	1.0	U	0.15	1.0
Ethylbenzene	1.0	U	0.25	1.0
Cyclohexane	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.19	1.0
Benzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.18	1.0
Methylcyclohexane	1.0	U	0.090	1.0
Dichlorobromomethane	1.0	U	0.093	1.0
cis-1,3-Dichloropropene	1.0	U	0.11	1.0
4-Methyl-2-pentanone (MIBK)	10	U	0.68	10
Toluene	1.0	U	0.090	1.0
trans-1,3-Dichloropropene	1.0	U	0.12	1.0
1,1,2-Trichloroethane	1.0	U	0.10	1.0
Tetrachloroethene	1.0	U	0.20	1.0
2-Hexanone	10	U	0.55	10
1,2-Dibromoethane	1.0	U	0.090	1.0
Chlorobenzene	1.0	U	0.16	1.0
Xylenes, Total	3.0	U	0.43	3.0
Styrene	1.0	U	0.13	1.0
Bromoform	1.0	U	0.10	1.0
Isopropylbenzene	1.0	U	0.21	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.22	1.0

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030210-RAM-007

Lab Sample ID: 460-10889-7

Date Sampled: 03/02/2010 1310

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method:	8260B	Analysis Batch: 460-31311	Instrument ID:	VOAMS4
Preparation:	5030B		Lab File ID:	d16919.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	03/05/2010 1335		Final Weight/Volume:	5 mL
Date Prepared:	03/05/2010 1335			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trichlorobenzene	1.0	U	0.44	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 122
4-Bromofluorobenzene	95		69 - 135
Toluene-d8 (Surr)	98		69 - 125

Analytical Data

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 460-10889-1

Client Sample ID: GW-017338-030210-RAM-007

Lab Sample ID: 460-10889-7

Date Sampled: 03/02/2010 1310

Client Matrix: GW

Date Received: 03/03/2010 1900

8260B Volatile Organics (GC/MS)

Method: 8260B

Analysis Batch: 460-31311

Instrument ID: VOAMS4

Preparation: 5030B

Lab File ID: d16919.d

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 03/05/2010 1335

Final Weight/Volume: 5 mL

Date Prepared: 03/05/2010 1335

Tentatively Identified Compounds

Number TIC's Found: 0

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	